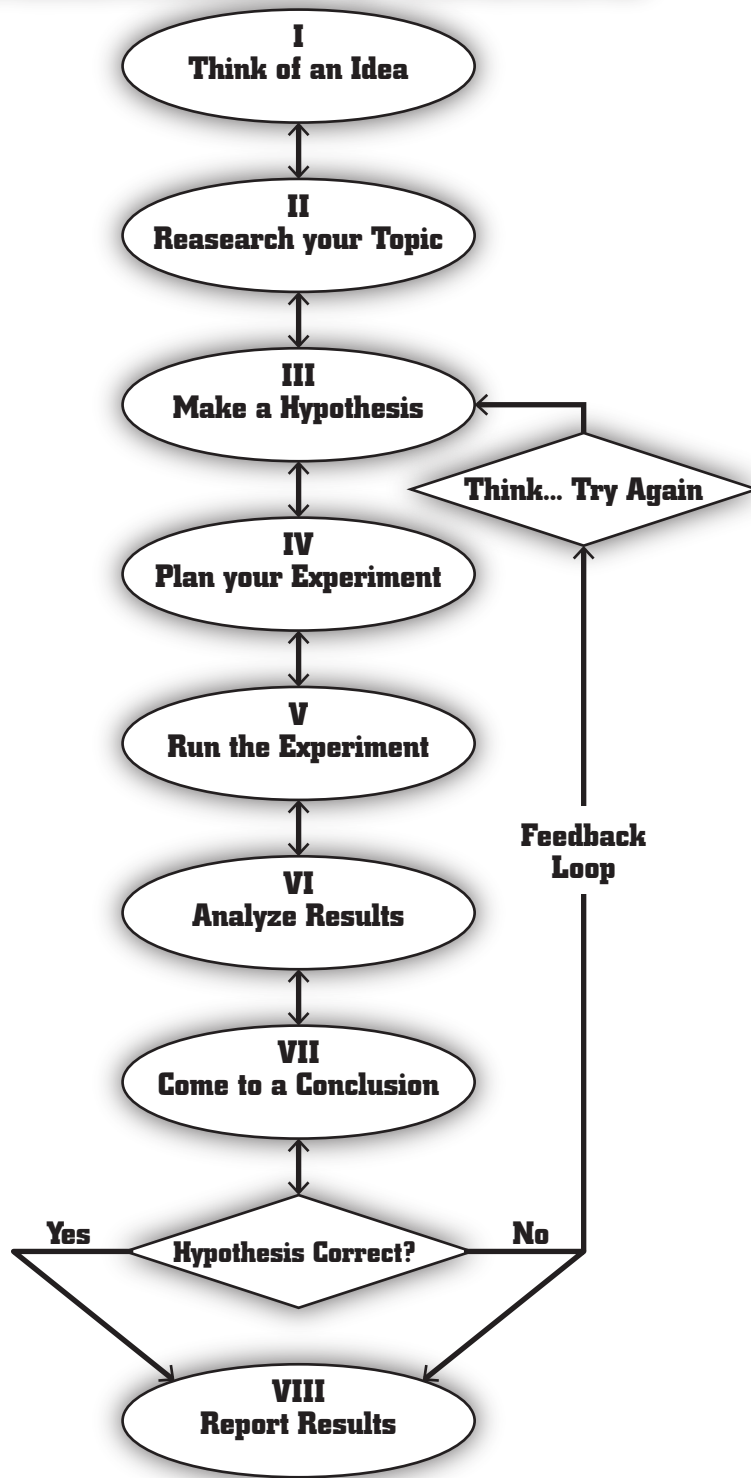


Scientific Method



I Think of an Idea - Pose a Question
 Example: Are all metals magnetic? Key

II Research your Topic
 Possible Sources: Internet, Books, Newspapers, Experts

III Make a Hypothesis
 Definition: An educated guess
 How to write: Write as an "If . . . then" statement
 Must be: testable
 Does not have to be: correct, it's ok to be wrong here
 Example: If I use a magnet on various metals then all of the metals will be attracted to the magnet

IV Plan your Experiment
 Identify *Independent Variable* - Define: "I" change
 Identify *Dependent Variable* - Define: Changes "D"uring the experiment
 Identify *Constants* - Define: Things that do NOT change
 Identify *Control Group* - Define: the group that I compare others to
 Write a Detailed Step-by-Step Procedure - See Example:
 Create a List of Materials and Tools needed
 Sketch Experiment Set-up and label the components

V Run Experiment
 Follow: Your Procedure
 Create: a data table
 Collect: your data and record it in your data table

VI Analyze Results
 Perform: any calculations
 Draw: a graph and look for trends

Procedure:

1. Get a strong magnet
2. Hold it against metal 1
3. Write result in data table
4. Repeat steps 1-3
5.
6.

VII Come to a Conclusion
 Restate: your hypothesis
 State: whether your hypothesis was correct or incorrect
 Explain: any possible errors in your experiment
 Summarize: your results

Feedback Loop
 Think and: try again if your hypothesis was not correct

VIII Report Results
 Definition: Scientists want the world to know what they discovered
 Possible Sites: Technical Journals, Blogs, Social Media